



# STIC Search Report

## Biotech-Chem Library

STIC Database Tracking Number: 113938

TO: Kevin Weddington  
Location: REM/4B87  
Art Unit: 1614  
Friday, February 13, 2004

4C70

Case Serial Number: 09720136

From: Toby Port  
Location: Biotech-Chem Library  
Remsen 1A59  
Phone: 571-272-2523

toby.port@uspto.gov

### Search Notes

Dear Examiner Weddington,

Here are the results of your search.  
Please feel free to contact me if you have any questions.

Toby Port



# STIC SEARCH RESULTS FEEDBACK FORM

## Biotech-Chem Library

Questions about the scope or the results of the search? Contact *the searcher or contact*:

Mary Hale, Information Branch Supervisor  
Remsen Bldg. 01 D86  
571-272-2507

## Voluntary Results Feedback Form

➤ I am an examiner in Workgroup:  Example: 1610

➤ Relevant prior art **found**, search results used as follows:

- ☐ 102 rejection
- ☐ 103 rejection
- ☐ Cited as being of interest.
- ☐ Helped examiner better understand the invention.
- ☐ Helped examiner better understand the state of the art in their technology

Types of relevant prior art found:

- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature  
(journal articles, conference proceedings, new product announcements etc.)

➤ Relevant prior art **not found**:

- ☐ Results verified the lack of relevant prior art (helped determine patentability).
- ☐ Results were not useful in determining patentability or understanding the invention

Comments:

Drop off or send completed forms to STIC-Biotech-Chem Library Remsen Bldg.



=> file reg

FILE 'REGISTRY' ENTERED AT 14:15:12 ON 13 FEB 2004  
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Property values tagged with IC are from the ZIC/VINITI data file  
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STRUCTURE FILE UPDATES: 11 FEB 2004 HIGHEST RN 649538-27-2  
DICTIONARY FILE UPDATES: 11 FEB 2004 HIGHEST RN 649538-27-2

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2003

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

Crossover limits have been increased. See HELP CROSSOVER for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

=> e 143-07-7

E1	1	143-04-4/RN
E2	1	143-06-6/RN
E3	1 -->	143-07-7/RN
E4	1	143-08-8/RN
E5	1	143-09-9/RN
E6	1	143-10-2/RN
E7	1	143-13-5/RN
E8	1	143-14-6/RN
E9	1	143-15-7/RN
E10	1	143-16-8/RN
E11	1	143-17-9/RN
E12	1	143-18-0/RN

=> s e3

L3 1 143-07-7/RN

=> d rn cn

L3 ANSWER 1 OF 1 REGISTRY COPYRIGHT 2004 ACS on STN  
RN 143-07-7 REGISTRY  
CN Dodecanoic acid (9CI) (CA INDEX NAME)  
OTHER CA INDEX NAMES:  
CN Lauric acid (8CI)  
OTHER NAMES:  
CN 1-Undecanecarboxylic acid  
CN ABL  
CN Aliphat No. 4  
CN Dodecylic acid  
CN Edenor C 1298-100  
CN Emery 651  
CN Hystrene 9512  
CN Kortacid 1299  
CN Laurostearic acid  
CN Lunac L 70  
CN Lunac L 98

CN n-Dodecanoic acid  
CN NAA 122  
CN NAA 312  
CN Neo-Fat 12  
CN Neo-Fat 12-43  
CN NSC 5026  
CN Philacid 1200  
CN Prifac 2920  
CN Univol U 314  
CN Vulvic acid

=> file hcaplus

FILE 'HCAPLUS' ENTERED AT 14:16:34 ON 13 FEB 2004

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FILE COVERS 1907 - 13 Feb 2004 VOL 140 ISS 7

FILE LAST UPDATED: 11 Feb 2004 (20040211/ED)

This file contains CAS Registry Numbers for easy and accurate substance identification.

L3 1 SEA FILE=REGISTRY ABB=ON PLU=ON 143-07-7/RN  
L4 14787 SEA FILE=HCAPLUS ABB=ON PLU=ON L3  
L9 26005 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIBACTERIAL AGENTS/CT  
L11 74287 SEA FILE=HCAPLUS ABB=ON PLU=ON FFD/RL  
L13 7 SEA FILE=HCAPLUS ABB=ON PLU=ON L4 (L) L11 AND L9  
L14 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L13 NOT (AUTOCLAV? OR TEA)/TI

L8 97977 SEA FILE=HCAPLUS ABB=ON PLU=ON FATTY ACIDS, BIOLOGICAL  
STUDIES/CT  
L9 26005 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIBACTERIAL AGENTS/CT  
L10 22138 SEA FILE=HCAPLUS ABB=ON PLU=ON FEED/CT OR FEED SUPPLEMENT  
L15 8 SEA FILE=HCAPLUS ABB=ON PLU=ON L8 AND L9 AND L10

L7 56645 SEA FILE=HCAPLUS ABB=ON PLU=ON EDIBLE OILS+NT/CT  
L9 26005 SEA FILE=HCAPLUS ABB=ON PLU=ON ANTIBACTERIAL AGENTS/CT  
L11 74287 SEA FILE=HCAPLUS ABB=ON PLU=ON FFD/RL  
L19 12 SEA FILE=HCAPLUS ABB=ON PLU=ON L7 (L) L11 AND L9  
L20 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L19 NOT (LECITHIN OR CARBONAT?  
OR SULFUR OR AUTOCLAV? OR HINOKIT? OR POLYMER)/TI

L22 4 SEA FILE=HCAPLUS ABB=ON PLU=ON L20 NOT PASTA/CT

=> s l14 or l15 or l22

L80 14 L14 OR L15 OR L22

=> file medline; d que l27; d que l34

FILE 'MEDLINE' ENTERED AT 16:13:23 ON 13 FEB 2004

FILE LAST UPDATED: 12 FEB 2004 (20040212/UP). FILE COVERS 1958 TO DATE.

On December 14, 2003, the 2004 MeSH terms were loaded. See HELP RLOAD for details.

MEDLINE thesauri in the /CN, /CT, and /MN fields incorporate the MeSH 2004 vocabulary. See <http://www.nlm.nih.gov/mesh/> and [http://www.nih.gov/pubs/yechnbull/nd03/nd03\\_mesh.html](http://www.nih.gov/pubs/yechnbull/nd03/nd03_mesh.html) for a description on changes.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L23 89082 SEA FILE=MEDLINE ABB=ON PLU=ON ANTIBACTERIAL AGENTS/CT  
L24 3120 SEA FILE=MEDLINE ABB=ON PLU=ON PALM OIL OR COCONUT OIL OR  
RAPESEED OIL OR LAURIC ACIDS+NT/CT  
L25 44451 SEA FILE=MEDLINE ABB=ON PLU=ON ANIMAL FEED+NT/CT  
L27 0 SEA FILE=MEDLINE ABB=ON PLU=ON L23 AND L24 AND L25

L24 3120 SEA FILE=MEDLINE ABB=ON PLU=ON PALM OIL OR COCONUT OIL OR  
RAPESEED OIL OR LAURIC ACIDS+NT/CT  
L25 44451 SEA FILE=MEDLINE ABB=ON PLU=ON ANIMAL FEED+NT/CT  
L30 22955 SEA FILE=MEDLINE ABB=ON PLU=ON L25/MAJ  
L32 4739 SEA FILE=MEDLINE ABB=ON PLU=ON PLANT OILS/CT  
L33 2934 SEA FILE=MEDLINE ABB=ON PLU=ON L32/MAJ  
L34 12 SEA FILE=MEDLINE ABB=ON PLU=ON L24 AND L30 AND L33

=> file embase; d que l44

FILE 'EMBASE' ENTERED AT 16:13:29 ON 13 FEB 2004

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FILE COVERS 1974 TO 12 Feb 2004 (20040212/ED)

EMBASE has been reloaded. Enter HELP RLOAD for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

L35 88103 SEA FILE=EMBASE ABB=ON PLU=ON EDIBLE OIL+ALL/CT  
L36 1126 SEA FILE=EMBASE ABB=ON PLU=ON LAURIC ACID/CT  
L38 23555 SEA FILE=EMBASE ABB=ON PLU=ON (ANTIINFECTIVE AGENT OR  
ANTIMYCOBACTERIAL AGENT)/CT  
L39 2758 SEA FILE=EMBASE ABB=ON PLU=ON FOOD ADDITIVE/CT  
L40 579 SEA FILE=EMBASE ABB=ON PLU=ON LIVESTOCK/CT  
L43 6 SEA FILE=EMBASE ABB=ON PLU=ON (L35 OR L36) AND L38 AND (L39  
OR L40)

L44 1 SEA FILE=EMBASE ABB=ON PLU=ON L43 AND BIOASSAY/TI

=> file wpid; d que 152; d que 157  
 FILE 'WPIDS' ENTERED AT 16:13:39 ON 13 FEB 2004  
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FILE LAST UPDATED: 13 FEB 2004 <20040213/UP>  
 MOST RECENT DERWENT UPDATE: 200411 <200411/DW>  
 DERWENT WORLD PATENTS INDEX SUBSCRIBER FILE, COVERS 1963 TO DATE

>>> NEW WEEKLY SDI FREQUENCY AVAILABLE --> see NEWS <<<

>>> PATENT IMAGES AVAILABLE FOR PRINT AND DISPLAY <<<

>>> FOR A COPY OF THE DERWENT WORLD PATENTS INDEX STN USER GUIDE,  
 PLEASE VISIT:  
[http://www.stn-international.de/training\\_center/patents/stn\\_guide.pdf](http://www.stn-international.de/training_center/patents/stn_guide.pdf) <<<

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>>> ADDITIONAL POLYMER INDEXING CODES WILL BE IMPLEMENTED FROM  
 DERWENT UPDATE 200403.  
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 SDIS USING THE TIME RANGE CODE WILL NEED TO BE UPDATED.  
 FOR FURTHER DETAILS: <http://thomsonderwent.com/chem/polymers/> <<<

L46 631715 SEA FILE=WPIDS ABB=ON PLU=ON FOOD OR FEED  
 L47 122948 SEA FILE=WPIDS ABB=ON PLU=ON ANIMAL OR LIVESTOCK  
 L48 3333 SEA FILE=WPIDS ABB=ON PLU=ON LAURIC ACID OR DODECANOIC ACID  
 OR ABL OR NAA (W) (122 OR 312) OR NSC 5026  
 L49 55262 SEA FILE=WPIDS ABB=ON PLU=ON ANTI (W) (INFECT? OR BACTER? OR  
 MYCOBACT? OR MICROB?) OR (ANTIINFECT OR ANTIBACTER? OR  
 ANTIMYCOB? OR ANTIMICROB?)  
 L50 31 SEA FILE=WPIDS ABB=ON PLU=ON L48 AND L49 AND (L46 OR L47)  
 L51 18 SEA FILE=WPIDS ABB=ON PLU=ON L50 AND (MONO? OR ESTER OR  
 SYNERG? OR LAURIC OR IMMUNE)/TI  
 L52 9 SEA FILE=WPIDS ABB=ON PLU=ON L51 NOT (DISINFECT? OR SALT OR  
 LOAD OR SUCCINIC OR SOY OR RESIN OR FILM OR STARCH)/TI

L45 11541 SEA FILE=WPIDS ABB=ON PLU=ON (EDIBLE OR RAPESEED OR PALM OR  
 COCONUT OR CANOLA OR PLANT) (1A) OIL  
 L46 631715 SEA FILE=WPIDS ABB=ON PLU=ON FOOD OR FEED  
 L47 122948 SEA FILE=WPIDS ABB=ON PLU=ON ANIMAL OR LIVESTOCK  
 L49 55262 SEA FILE=WPIDS ABB=ON PLU=ON ANTI (W) (INFECT? OR BACTER? OR  
 MYCOBACT? OR MICROB?) OR (ANTIINFECT OR ANTIBACTER? OR  
 ANTIMYCOB? OR ANTIMICROB?)  
 L55 17 SEA FILE=WPIDS ABB=ON PLU=ON L45 AND L46 AND L47 AND L49  
 L57 2 SEA FILE=WPIDS ABB=ON PLU=ON L55 AND (NOVEL OR FISHERY)/TI

=> s 152 or 157  
L81 11 L52 OR L57

=> file biosis; d que 168  
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CAS REGISTRY NUMBERS AND CHEMICAL NAMES (CNs) PRESENT  
FROM JANUARY 1969 TO DATE.

RECORDS LAST ADDED: 11 February 2004 (20040211/ED)

FILE RELOADED: 19 October 2003.

L58 573561 SEA FILE=BIOSIS ABB=ON PLU=ON FOOD OR FEED  
L59 229286 SEA FILE=BIOSIS ABB=ON PLU=ON LIVESTOCK OR CATTLE OR CHICKEN  
  
L60 8455 SEA FILE=BIOSIS ABB=ON PLU=ON LAURIC ACID OR DODECANOIC ACID  
OR ABL OR NAA (W) (122 OR 312) OR NSC 5026  
L67 12 SEA FILE=BIOSIS ABB=ON PLU=ON L60 AND L59 AND L58  
L68 5 SEA FILE=BIOSIS ABB=ON PLU=ON L67 AND (GLOBULE OR FEEDLOT OR  
RUMEN OR QUALITY OR OILSEED?)/TI

=> dup rem 134 180 144 181 168  
FILE 'MEDLINE' ENTERED AT 16:16:18 ON 13 FEB 2004

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PROCESSING COMPLETED FOR L34  
PROCESSING COMPLETED FOR L80  
PROCESSING COMPLETED FOR L44  
PROCESSING COMPLETED FOR L81  
PROCESSING COMPLETED FOR L68

L82 42 DUP REM L34 L80 L44 L81 L68 (1 DUPLICATE REMOVED)  
ANSWERS '1-12' FROM FILE MEDLINE  
ANSWERS '13-26' FROM FILE HCAPLUS  
ANSWER '27' FROM FILE EMBASE  
ANSWERS '28-37' FROM FILE WPIDS  
ANSWERS '38-42' FROM FILE BIOSIS

=> d ibib ab 182 1-42

L82 ANSWER 1 OF 42 MEDLINE on STN  
ACCESSION NUMBER: 2002718474 MEDLINE  
DOCUMENT NUMBER: 22368550 PubMed ID: 12480803

TITLE: Lower calcium absorption in infants fed casein hydrolysate- and soy protein-based infant formulas containing palm olein versus formulas without palm olein.

AUTHOR: Ostrom Karin M; Borschel Marlene W; Westcott Jamie E; Richardson Katherine S; Krebs Nancy F

CORPORATE SOURCE: Research & Development and Scientific Affairs, Ross Products Division, Abbott Laboratories, Columbus, Ohio 43215, USA.

SOURCE: JOURNAL OF THE AMERICAN COLLEGE OF NUTRITION, (2002 Dec) 21 (6) 564-9.  
Journal code: 8215879. ISSN: 0731-5724.

PUB. COUNTRY: United States

DOCUMENT TYPE: (CLINICAL TRIAL)  
Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English

FILE SEGMENT: Priority Journals

ENTRY MONTH: 200305

ENTRY DATE: Entered STN: 20021218  
Last Updated on STN: 20030507  
Entered Medline: 20030506

AB OBJECTIVE: Quantitative balance studies were performed to compare fat and calcium absorption in healthy, full term infants fed casein hydrolysate-based (CHF) and soy protein-based (SPF) infant formulas with or without palm olein (PO). Previous studies have reported that PO significantly reduced absorption of both fat and calcium in cow's milk-based formulas in which most of the calcium is inherent in the milk protein. In both SPF and CHF virtually all calcium is added as calcium salts. METHODS: Two randomized, blinded, crossover balance studies were conducted in normal term infants using a three-day home balance method. One study evaluated 10 infants fed commercially available CHF with or without PO, and the other study evaluated 12 infants fed commercially available SPF with or without PO. Fat and calcium absorption were determined based on the weight of formula intake, weight of stools, and measured calcium and fat in formula and stools. RESULTS: Fat and calcium intake did not differ between the groups fed CHF. However, infant's calcium and fat absorption was less, 41 +/- 6% (Mean +/- SEM) and 92.0 +/- 0.8%, respectively, when fed CHF with PO compared to 66 +/- 5% and 96.6 +/- 1.1%, respectively, when fed CHF without PO, (p < 0.01). For infants fed SPF, fat and calcium intake did not differ between the feeding groups. Mean calcium absorption was also significantly less when infants were fed SPF with PO, 22 +/- 3%, than when fed SPF with no PO, 37 +/- 4% (p < 0.05). Fat absorption did not differ between the two SPFs. CONCLUSION: This study demonstrates that PO, as the predominant fat, is associated with significantly lower absorption of calcium from infant formulas in which calcium salts are the source of calcium. These findings corroborate previous reports of this negative effect of PO in cow milk-based infant formulas in which most of the calcium is a component of the cow milk protein source.

L82 ANSWER 2 OF 42 MEDLINE on STN

ACCESSION NUMBER: 2002732050 MEDLINE

DOCUMENT NUMBER: 22380373 PubMed ID: 12492637

TITLE: Potential of **palm oil** utilisation in aquaculture feeds.

AUTHOR: Ng Wing-Keong

CORPORATE SOURCE: Fish Nutrition Laboratory, School of Biological Sciences, Universiti Sains Malaysia, Penang, Malaysia.. wkng@usm.my

SOURCE: Asia Pac J Clin Nutr, (2002) 11 Suppl 7 S473-6. Ref: 21  
Journal code: 9440304. ISSN: 0964-7058.

PUB. COUNTRY: Australia  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 General Review; (REVIEW)  
 (REVIEW, TUTORIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200306  
 ENTRY DATE: Entered STN: 20021227  
 Last Updated on STN: 20030613  
 Entered Medline: 20030612

AB One key ingredient used in the formulation of aquafeed is fish oil, which is produced from small marine pelagic fish and represents a finite fishery resource. At the present time, global fish oil production has reached a plateau and is not expected to increase beyond current levels. Recent estimates suggest that fish oils may be unable to meet demands from the rapidly growing aquaculture industry by as early as 2005. Therefore, there is currently great interest within the aquafeed industry in evaluating alternatives to fish oils. The ever-expanding oil palm cultivation in Malaysia and other tropical countries offers the possibility of an increased and constant availability of **palm oil** products for aquafeed formulation. Research into the use of **palm oil** in aquafeed begun around the mid-1990s and this review examines some of the findings from these studies. The use of **palm oil** in fish diets has generally shown encouraging results. Improved growth, feed efficiency, protein utilisation, reproductive performance and higher concentrations of alpha-tocopherol in fish fillets have been reported. Recent evidence for the ability of **palm oil** to substitute for fish oil in catfish diets is reviewed. The potential of **palm oil** use in aquafeed and future experimental directions are suggested. The aquaculture feed industry offers a great avenue to increase and diversify the use of **palm oil**-based products.

L82 ANSWER 3 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 2001103524 MEDLINE  
 DOCUMENT NUMBER: 20354849 PubMed ID: 10898484  
 TITLE: Effect of feeding crude red **palm oil**  
 (Elaeis guineensis) and grain amaranth (Amaranthus paniculatus) to hens on total lipids, cholesterol, PUFA levels and acceptability of eggs.  
 AUTHOR: Punita A; Chaturvedi A  
 CORPORATE SOURCE: Department of Foods & Nutrition, PG & Research Centre, ANGR Agricultural University, Rajendra Nagar, Hyderabad, India.  
 SOURCE: PLANT FOODS FOR HUMAN NUTRITION, (2000) 55 (2) 147-57.  
 Journal code: 8803554. ISSN: 0921-9668.  
 PUB. COUNTRY: Netherlands  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200102  
 ENTRY DATE: Entered STN: 20010322  
 Last Updated on STN: 20010322  
 Entered Medline: 20010208

AB Eggs, though a very nutritious food, also have high amounts of cholesterol and hence are not recommended to be consumed regularly by persons having hypercholesterolemia and associated cardiovascular diseases (CVD). In this context, an attempt was made in this study to reduce the cholesterol content of eggs by diet manipulation, using two naturally available and already proved hypocholesteromic agents [red **palm oil** (RPO) and grain amaranth]. Thirteen experimental rations using raw and

popped grain Amaranth and RPO were fed to 24 weeks old hens for a period of 6 weeks, singularly and in combinations. Total lipids, cholesterol and PUFA contents were analyzed in the experimental and control eggs. The results showed that RPO and RPO + popped amaranth feeding resulted in a maximum reduction in total lipids and cholesterol contents. Significant increase was observed in linoleic acid content in RPO + popped amaranth; raw amaranth and RPO fed groups. Acceptability studies showed that the products made from lower cholesterol eggs were well accepted.

L82 ANSWER 4 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 2000148328 MEDLINE  
 DOCUMENT NUMBER: 20148328 PubMed ID: 10685892  
 TITLE: Research notes: The effect of different levels of palm kernel meal in layer diets.  
 AUTHOR: Perez J F; Gernat A G; Murillo J G  
 CORPORATE SOURCE: Escuela Agricola Panamericana, Departamento de Zootecnia, Tegucigalpa, Honduras.  
 SOURCE: POULTRY SCIENCE, (2000 Jan) 79 (1) 77-9.  
 Journal code: 0401150. ISSN: 0032-5791.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: (CLINICAL TRIAL)  
 Journal; Article; (JOURNAL ARTICLE)  
 (RANDOMIZED CONTROLLED TRIAL)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 200003  
 ENTRY DATE: Entered STN: 20000320  
 Last Updated on STN: 20000320  
 Entered Medline: 20000309

AB Palm kernel meal (PKM), a by-product from the African Palm oil industry that is extensively cultivated in tropical countries, is an interesting feed ingredient for poultry due to its availability and low cost. The objective of this study was to evaluate the use of different levels of PKM in layer diets. This particular PKM contained 9.70% crude protein, 0.20% methionine, 0.36% lysine, and a TMEn value of 2,254 kcal/kg. A control diet based on corn and soybean meal and five different levels of PKM added to it were fed to Single Comb White Leghorn hens from 18 to 38 wk of age. The PKM levels were 0, 10, 20, 30, 40, and 50%. The hens were housed three per cage (30.5 cm wide x 45.7 cm deep). The six treatments were assigned randomly to three contiguous cages in each of eight rows in a randomized complete block design. Egg production was recorded daily, and feed consumption for an entire week was recorded every 21 d. Egg weight and specific gravity were recorded for 3 consecutive d every 21 d. Mortality was recorded daily. Results show that egg production was significantly decreased ( $P < 0.05$ ) only with 50% PKM in the diet. Feed conversion was not affected by any level of PKM. Specific gravity was slightly but significantly ( $P < 0.05$ ) decreased by all levels of added PKM. Feed consumption, mortality, and egg weight did not differ significantly among the treatments. We concluded that this particular PKM may be used up to 40% in the diet, taking into account that specific gravity may be slightly decreased.

L82 ANSWER 5 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 1999188648 MEDLINE  
 DOCUMENT NUMBER: 99188648 PubMed ID: 10090262  
 TITLE: n-3 enrichment of chicken meat using fish oil: alternative substitution with rapeseed and linseed oils.  
 AUTHOR: Lopez-Ferrer S; Baucells M D; Barroeta A C; Grashorn M A  
 CORPORATE SOURCE: Department de Nutricio Animal, Facultat de Veterinaria, Universitat Autonoma de Barcelona, Bellaterra, Spain.

SOURCE: POULTRY SCIENCE, (1999 Mar) 78 (3) 356-65.  
 Journal code: 0401150. ISSN: 0032-5791.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199905  
 ENTRY DATE: Entered STN: 19990601  
 Last Updated on STN: 19990601  
 Entered Medline: 19990517

AB Two sequential experiments were conducted to assess the effect of replacing a fish oil diet with vegetable oil diets on broiler chicken performance and fatty acid (FA) composition and sensory traits of broiler meat. A diet enriched with 8.2% fish oil (FO) was fed to the birds throughout the 5-wk growth period (T1), the same basal diet being supplemented with 8.2% linseed oil (LO, Experiment 1) or **rapeseed oil** (RO, Experiment 2) in three different periods: the last week before slaughtering at 35 d (T2), the last 2 wk (T3), and throughout the experiment (T4). A sensory evaluation of the meat was carried out and its FA profile was determined. Performance parameters were not significantly different among treatments. Removing FO resulted in lower values of saturated and higher n-6 FA content, the latter because of the increase in linoleic acid in both experiments. The amounts of long-chain n-3 polyunsaturated fatty acids (PUFA) were significantly depressed when FO was replaced. However, replacing FO by LO resulted in minimal effects on total n-3 FA, due to the increase in linolenic acid. The substitution of FO by RO resulted in a decrease in the n-3 FA content, whereas levels of monounsaturated FA (MUFA) increased in direct relation to the larger amounts of oleic acid in the diet. Sensory panelists scored as unacceptable those meats from T1 in both experiments. Replacing 1 (T2) or 2 (T3) wk FO with vegetable oil clearly resulted in the improved sensory quality of meat.

L82 ANSWER 6 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 1999161796 MEDLINE  
 DOCUMENT NUMBER: 99161796 PubMed ID: 10064033  
 TITLE: Antioxidative and oxidative status in muscles of pigs fed **rapeseed oil**, vitamin E, and copper.  
 AUTHOR: Lauridsen C; Nielsen J H; Henckel P; Sorensen M T  
 CORPORATE SOURCE: Danish Institute of Agricultural Sciences, Research Centre Foulum.. charlotte.lauridsen@agrsci.dk  
 SOURCE: JOURNAL OF ANIMAL SCIENCE, (1999 Jan) 77 (1) 105-15.  
 Journal code: 8003002. ISSN: 0021-8812.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199905  
 ENTRY DATE: Entered STN: 19990525  
 Last Updated on STN: 19990525.  
 Entered Medline: 19990513

AB The susceptibility of a given muscle tissue to lipid oxidation may not only depend on the presence of unsaturated fatty acids and the balance between antioxidants and prooxidants, but also on the composition of the skeletal muscle. In the present study, the effects of dietary supplementation of vitamin E (dl-alpha-tocopheryl acetate) and copper in combination with a high level of monounsaturated fatty acids were examined with regard to the antioxidant concentration and the susceptibility to lipid oxidation of two muscles, longissimus (LD) and psoas major (PM), representing different oxidative capacity. In addition, fatty acid

profiles of the backfat and the intramuscular lipids, as well as fresh meat quality traits, were studied. Pigs were allotted to a 3x3 factorial experiment with three levels of dl-alpha-tocopheryl acetate (0, 100, and 200 mg/kg of feed) and three levels of copper (0, 35, and 175 mg/kg of feed) added to a diet containing 6% **rapeseed oil**. A basal diet (without **rapeseed oil**) was added to the experimental design, giving a total of 10 dietary treatments. Muscle alpha-tocopherol concentrations increased ( $P < .001$ ) with increasing dl-alpha-tocopheryl acetate in the feed. The antioxidative status was higher in PM than in LD, when considering the concentration of alpha-tocopherol ( $P < .001$ ) and the activity of antioxidant enzymes (superoxide dismutase,  $P < .001$ ; glutathione peroxidase,  $P = .06$ ). Supplemental copper did not give rise to any deposition of copper in muscle tissue or backfat, but the antioxidant status of PM increased. The susceptibility to lipid oxidation was reduced in LD with increasing dietary dl-alpha-tocopheryl acetate and in PM with increasing dietary copper. Supplemental dl-alpha-tocopherol acetate improved the water-holding capacity of LD ( $P = .005$ ) and PM ( $P = .003$ ). The fatty acid composition of the backfat and the triglyceride fraction of the intramuscular fat became more unsaturated with the addition of **rapeseed oil** to the feed. Higher intakes of monounsaturated fatty acids due to the **rapeseed oil** were also reflected in the phospholipid fraction of the intramuscular fat, but no influence on the proportion of saturated fatty acids was seen. The susceptibility to lipid oxidation of PM was lower for pigs on the **rapeseed oil**-based diet than for those on the basal diet. The energy metabolic status of the muscles and the accumulation of calcium by the sarcoplasmic reticulum were not influenced by the dietary treatments, but there were differences between muscle types. The addition of **rapeseed oil** to the diet reduced the muscular content of glycogen (LD,  $P = .02$ ; PM,  $P = .06$ ) and elevated the plasma concentration of free fatty acids ( $P = .05$ ). Overall, dietary fat, dl-alpha-tocopherol acetate, and copper affected the oxidative status of pig muscles, and the results differed depending on muscle type.

L82 ANSWER 7 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 96230024 MEDLINE  
 DOCUMENT NUMBER: 96230024 PubMed ID: 8620115  
 TITLE: Determination of shell content in palm kernel cake.  
 AUTHOR: Siew W L  
 CORPORATE SOURCE: Palm Oil Research Institute of Malaysia, Bandar Baru Bangi, Kajang, Selangor.  
 SOURCE: JOURNAL OF AOAC INTERNATIONAL, (1996 Jan-Feb) 79 (1) 80-2.  
 Journal code: 9215446. ISSN: 1060-3271.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199606  
 ENTRY DATE: Entered STN: 19960627  
 Last Updated on STN: 19980206  
 Entered Medline: 19960618

AB A method for determining shell in palm kernel cake (PKC) is described. This simple and rapid method requires little pretreatment compared with the method currently used in PKC trade, in which the sample undergoes defatting, acid and alkali digestion, and washing, before a chloroform-alcohol solution is used to separate the shells. In the proposed method, only defatting the sample is required. The shells are separated by the density difference between the shell and PKC in a potassium iodide solution. Recoveries of at least 93% were obtained, and

the correlation coefficient between the actual shell content and the determined shell content was 0.999, with gradients of 0.97 and 0.98 for fine and coarse shell, respectively.

L82 ANSWER 8 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 94209135 MEDLINE  
 DOCUMENT NUMBER: 94209135 PubMed ID: 8157517  
 TITLE: The effects of high-forage diets with added **palm oil** on performance, plasma lipids, and carcass characteristics of ram lambs with initially high or low plasma cholesterol.  
 AUTHOR: Lough D S; Solomon M B; Rumsey T S; Kahl S; Slyter L L  
 CORPORATE SOURCE: Meat Science Research Laboratory, ARS, USDA, Beltsville, MD 20705-2350.  
 SOURCE: JOURNAL OF ANIMAL SCIENCE, (1994 Feb) 72 (2) 330-6.  
 Journal code: 8003002. ISSN: 0021-8812.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199405  
 ENTRY DATE: Entered STN: 19940526  
 Last Updated on STN: 19940526  
 Entered Medline: 19940517

AB The objectives of this study were to examine the interaction between added **palm oil** in high-forage diets and initial concentration of plasma cholesterol on performance, plasma lipids, and carcass characteristics of growing ram lambs. Thirty-two Hampshire-Suffolk ram lambs (initial BW = 34.4 kg) were assigned to a 2 x 2 factorial design consisting of diet (basal [NPO] or 10.7% added **palm oil** [PO]) and initial plasma cholesterol concentration (high mean = 50 mg/dL [HC] or low mean = 38 mg/dL [LC]; SEM = 2; P = .01). The lambs were individually fed diets (77% forage-23% concentrate) that contained 16.0% CP, 2.14 Mcal of ME/kg (NPO), and 2.62 Mcal of ME/kg (PO). Metabolizable energy intakes were adjusted to .20 Mcal/kg of BW.75 for both dietary treatments. Lambs were weighed and feed intakes adjusted weekly. Lambs were bled via jugular venipuncture on d 28, 56, and 84 and lambs were slaughtered after they had been fed the diets for 90 d. Plasma concentrations of total cholesterol, high-density lipoprotein cholesterol, triglycerides, and nonesterified fatty acids were increased (P = .01) by feeding PO. Lambs fed PO were fatter than lambs fed NPO, as indicated by greater subcutaneous fat thickness and kidney and pelvic fat. Initial plasma cholesterol concentration had little effect on any of the parameters measured. Lambs fed PO had fatter carcasses than lambs fed NPO at calculated equalized ME intakes, which indicates that energy deposition is more efficient in **palm oil**-supplemented diets.

L82 ANSWER 9 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 94252278 MEDLINE  
 DOCUMENT NUMBER: 94252278 PubMed ID: 8194494  
 TITLE: Similar serum lipoprotein cholesterol concentrations in healthy subjects on diets enriched with rapeseed and with sunflower oil.  
 AUTHOR: Nydahl M; Gustafsson I B; Ohrvall M; Vessby B  
 CORPORATE SOURCE: Department of Geriatrics, University of Uppsala, Sweden.  
 SOURCE: EUROPEAN JOURNAL OF CLINICAL NUTRITION, (1994 Feb) 48 (2) 128-37.  
 Journal code: 8804070. ISSN: 0954-3007.  
 PUB. COUNTRY: ENGLAND: United Kingdom  
 DOCUMENT TYPE: (CLINICAL TRIAL)

Journal; Article; (JOURNAL ARTICLE)  
(RANDOMIZED CONTROLLED TRIAL)

LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199406  
ENTRY DATE: Entered STN: 19940707  
Last Updated on STN: 19940707  
Entered Medline: 19940624

AB A double-blind cross-over study was conducted during two 3-week periods to compare the effects of **rapeseed oil** and sunflower oil, enriching a normal diet, on the lipoprotein and fatty acid composition in healthy subjects. It was carried out in randomized order at residential schools, comprising 101 persons (mean age 29.2 years). The dietary fats used for cooking and as table margarine were prepared from **rapeseed oil** during one period and from sunflower oil during the other. No changes were made in the total fat content or other dietary nutrients. During both treatment periods the serum cholesterol (-4%,  $P < 0.001$ ), LDL cholesterol (-5% to -7%,  $P < 0.01$  and  $0.001$ ) and apolipoprotein B (-5%,  $P < 0.001$ ) concentrations decreased significantly and to the same extent, while serum triglycerides, HDL cholesterol, apolipoprotein A-1 and lipoprotein (a) remained virtually unchanged. The content of 18:2 n-6 serum phospholipids was increased after the sunflower oil-enriched diet, and the contents of oleic acid (18:1 n-9), alpha-linolenic acid (18:3 n-3), and eicosapentaenoic acid (20:5 n-3) were increased after the **rapeseed oil**-enriched diet. The concentration of alpha-tocopherol increased and gamma-tocopherol decreased after the sunflower oil-enriched diet, less so after the **rapeseed oil**-enriched diet. It is concluded that substitution of mono- and polyunsaturated fats for saturated fats without any other dietary changes causes a significant improvement of the lipoprotein profile in healthy subjects. The **rapeseed oil** and sunflower oil fats were equally effective in this respect. The results also indicate that humans have a certain capacity to elongate and desaturate alpha-linolenic acid to 20:5 n-3 in vivo. Dietary fats based on **rapeseed oil** seem to be attractive alternatives to the more commonly used oils and fats rich in linoleic acid. Financial support from the Swedish Council for Forestry and Agricultural Research and the Swedish Margarine Industrial Association for Nutritional Physiological Research is gratefully acknowledged.

L82 ANSWER 10 OF 42 MEDLINE on STN

ACCESSION NUMBER: 95251532 MEDLINE  
DOCUMENT NUMBER: 95251532 PubMed ID: 7733807  
TITLE: Plasma thyroxine concentration in non-pregnant and lactating mink, and effect of dietary **rapeseed oil** in the reproduction period.  
AUTHOR: Tauson A H; Neil M  
CORPORATE SOURCE: Department of Animal Science and Animal Health, Royal Veterinary and Agricultural University, Frederiksberg, Denmark.  
SOURCE: ARCHIV FUR TIERERNAHRUNG, (1994) 46 (1) 103-9.  
Journal code: 0217641. ISSN: 0003-942X.  
PUB. COUNTRY: Switzerland  
DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
LANGUAGE: English  
FILE SEGMENT: Priority Journals  
ENTRY MONTH: 199505  
ENTRY DATE: Entered STN: 19950608  
Last Updated on STN: 19950608  
Entered Medline: 19950526

AB Effect of dietary **rapeseed oil** from 00-varieties of rapeseed (0, 1.5% or 3% respectively in the wet compounded diets) on plasma thyroxine (T4), reproductive performance and kit weight gain during lactation was investigated with 3 groups of each 20 mink females. Plasma T4, which has not previously been reported for female mink, was significantly lower in lactating than in non-pregnant females. Unlike in an earlier experiment with growing male mink, it was not affected by dietary **rapeseed oil**. Reproductive performance, female weight development, feed consumption, and kit weight gain was normal in all treatment groups and there were no significant effects of the experimental treatment.

L82 ANSWER 11 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 93280038 MEDLINE  
 DOCUMENT NUMBER: 93280038 PubMed ID: 8505250  
 TITLE: Effects of high-forage diets with added **palm oil** on performance, plasma lipids, and carcass characteristics of ram and ewe lambs.  
 AUTHOR: Lough D S; Solomon M B; Rumsey T S; Kahl S; Slyter L L  
 CORPORATE SOURCE: Meat Science Research Laboratory, ARS, USDA, Beltsville, MD 20705-2350.  
 SOURCE: JOURNAL OF ANIMAL SCIENCE, (1993 May) 71 (5) 1171-6.  
 Journal code: 8003002. ISSN: 0021-8812.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199307  
 ENTRY DATE: Entered STN: 19930716  
 Last Updated on STN: 19930716  
 Entered Medline: 19930708

AB The objectives of this study were to determine the effects of high-forage diets with and without added dietary **palm oil** (high in palmitic acid) fed at equalized ME intakes on performance, plasma lipids, and carcass characteristics of growing ram and ewe lambs. Thirty-one Hampshire or Suffolk lambs (35.7 kg BW) were used in a 2 x 2 factorial arrangement of the following treatments: 1) rams, no **palm oil** (R-NPO); 2) ewes, no **palm oil** (E-NPO); 3) rams, 10.7% dietary **palm oil** (R-PO); and 4) ewes, 10.7% dietary **palm oil** (E-PO). Both diets consisted of 77% forage and 23% concentrate. Diet DM contained 15.0% CP and 2.14 Mcal of ME/kg (NPO) or 2.62 Mcal of ME/kg (PO). Lambs were fed individually specified amounts of diet based on BW to equalize ME intake (.20 Mcal of ME/kg of BW.75) for both dietary treatments. Lambs were weighed and feed intakes were adjusted weekly. Lambs were bled by jugular venipuncture on d 28, 56, and 84 and were slaughtered after they had been fed the diets for 90 d. Lambs fed PO had greater ( $P < .01$ ) ADG and efficiency (ADG/ME intake) than lambs fed NPO. Plasma concentrations of cholesterol, high-density lipoprotein cholesterol, triglycerides, and nonesterified fatty acids were increased ( $P < .01$ ) by feeding PO. Lambs fed PO were fatter than lambs fed NPO, as evidenced by greater subcutaneous fat thickness and kidney and pelvic fat. Ewes had greater ( $P < .01$ ) subcutaneous fat than did rams. (ABSTRACT TRUNCATED AT 250 WORDS)

L82 ANSWER 12 OF 42 MEDLINE on STN  
 ACCESSION NUMBER: 91377538 MEDLINE  
 DOCUMENT NUMBER: 91377538 PubMed ID: 1716819  
 TITLE: Nutritional value of processed rapeseed meal.  
 AUTHOR: Paik I K  
 CORPORATE SOURCE: Department of Animal Science, Chung-Ang University,

SOURCE: Kyonggi-Do, South Korea.  
 ADVANCES IN EXPERIMENTAL MEDICINE AND BIOLOGY, (1991) 289  
 403-14.  
 Journal code: 0121103. ISSN: 0065-2598.  
 PUB. COUNTRY: United States  
 DOCUMENT TYPE: Journal; Article; (JOURNAL ARTICLE)  
 LANGUAGE: English  
 FILE SEGMENT: Priority Journals  
 ENTRY MONTH: 199110  
 ENTRY DATE: Entered STN: 19911108  
 Last Updated on STN: 19970203  
 Entered Medline: 19911024

AB Supplementation of iodine at the level of 3.5 ppm reduced weight gain of the rats fed rapeseed oil meal (ROM) diets. Treatment of ROM with ammonia at the level of 2 or 4% tended to increase metabolizable energy value and availability of dry matter, crude protein and crude ash of ROM in the chicken. Potential goitrin level of ROM was reduced by ammoniation at 6% level. On the other hand, level of potential isothiocyanates increased by ammoniation. Treatment of ROM with ammonia at the level of 3% and above reduced weight gain of the chickens fed treated ROMs. Weight of thyroid glands of the birds increased as the level of ammoniation of ROM increased. Supplementation of Avoparcin to the diets containing ROM improved weight gain and dressing percentage of the broiler chickens.

L82 ANSWER 13 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN DUPLICATE 1  
 ACCESSION NUMBER: 1999:819194 HCAPLUS  
 DOCUMENT NUMBER: 132:35055  
 TITLE: Use of oils having a high lauric acid content in feed  
 INVENTOR(S): Teter, Beverly B.  
 PATENT ASSIGNEE(S): University of Maryland, USA  
 SOURCE: PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9966804	A1	19991229	WO 1999-US13894	19990622
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SL, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
CA 2335550	AA	19991229	CA 1999-2335550	19990622
AU 9946993	A1	20000110	AU 1999-46993	19990622
EP 1089635	A1	20010411	EP 1999-930456	19990622
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI				
JP 2002518031	T2	20020625	JP 2000-555502	19990622
NZ 509312	A	20031128	NZ 1999-509312	19990622
PRIORITY APPLN. INFO.: US 1998-90303P P 19980623				
WO 1999-US13894 W 19990622				

AB Antibiotic use in livestock is reduced by the use of an antimicrobial

fatty acid component in feed or as a **feed supplement**.

The use of natural oils that are high in lauric acid are particularly indicated. Thus, broiler chickens are fed a diet in which part of the fat is replaced with coconut oil, so that lauric acid comprises about 3% by weight of the diet.

REFERENCE COUNT: 11 THERE ARE 11 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 14 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:610164 HCAPLUS

DOCUMENT NUMBER: 139:148770

TITLE: Antibacterial compositions based on organic acids and coumarins

INVENTOR(S): Leitch McWilliam, Elizabeth Carol; Duncan, Sylvia Helen; Flint, Harry James; Stewart, Colin Samuel

PATENT ASSIGNEE(S): Rowett Research Institute, UK

SOURCE: PCT Int. Appl., 51 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003063619	A1	20030807	WO 2003-GB401	20030131
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, VZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: GB 2002-2187 A 20020131

AB An antibacterial composition comprises an admixt. of an organic acid (excluding acetate, propionate and butyrate) together with a coumarin or coumarin glycoside. Preferred organic acids include lactate, citrate and benzoate, especially L-lactate. Preferred coumarins are esculetin, scopoletin, umbelliferone and coumarin. The composition, which is effective against E. coli O157, Salmonella, Listeria, Campylobacter and MRSA, can be used to disinfect buildings or instruments and in food preparation eg. as a vegetable wash.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 15 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:356621 HCAPLUS

DOCUMENT NUMBER: 138:353254

TITLE: Method for the inhibition of Archaea methanogenesis in ruminants, landfills and anaerobic waters and digesters

INVENTOR(S): Miner, Jess L.; Ragsdale, Stephen W.; Takacs, James M.

PATENT ASSIGNEE(S): The Board of Regents of the University of Nebraska, USA

SOURCE: PCT Int. Appl., 268 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003038109	A2	20030508	WO 2002-US29597	20020918
WO 2003038109	A3	20031120		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
US 2003219467	A1	20031127	US 2002-245965	20020918
PRIORITY APPLN. INFO.:			US 2001-322928P	P 20010918
			US 2002-245965	A 20020918

OTHER SOURCE(S): MARPAT 138:353254

AB The current invention is directed toward a method for inhibiting methanogenesis and/or the growth of methanogens. The method comprises contacting a methanogenic Archaea medium with a methane inhibiting amount and/or a growth inhibiting amount of a compound that specifically inhibits methane formation and inhibits the growth of methanogens. A method to increase feed efficiency in a ruminant is also provided via administering to the animal an effective rumen modifying amount of a compound that specifically inhibits methanogenesis.

L82 ANSWER 16 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2003:97254 HCAPLUS  
 DOCUMENT NUMBER: 138:136223  
 TITLE: Animal feed with low PUFA concentration  
 INVENTOR(S): Kies, Arie Karst  
 PATENT ASSIGNEE(S): DSM N.V., Neth.  
 SOURCE: PCT Int. Appl., 29 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 3  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003009701	A1	20030206	WO 2002-EP8159	20020722
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: EP 2001-306248 A 20010720

AB The use of low concns. of (a) PUFA (s) in an animal feed for monogastric and/or non-ruminant animals is disclosed to improve growth and feed conversion ratio. The concentration can be much lower than expected from the art, namely from 0.1 to 0.0001 g/kg feed, and yet still be effective. This may enable farmers to use lower concns. of PUFA (s) in feed and hence reduce the cost of the feed. The feed may also have one or more antimicrobial enzymes present.

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 17 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2003:254267 HCAPLUS

DOCUMENT NUMBER: 138:270683

TITLE: Manufacture of edible oils containing tea leaf components

INVENTOR(S): Kanayama, Masanori; Kato, Hiroshi

PATENT ASSIGNEE(S): Pure Geen K. K., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2003092988	A2	20030402	JP 2001-289693	20010921
PRIORITY APPLN. INFO.:			JP 2001-289693	20010921

AB The edible oils which have antioxidant activity, antimicrobial effect, and high nutritive value, are manufactured by adding ground tea leaves to edible oils, further pulverizing the leaves, removing the tea leaf powder, and optionally treating the oils with adsorbents to remove chlorophylls. Green tea leaves were pulverized into average particle size 15  $\mu$ m, mixed with coconut oil, and further ground to give coconut oil containing 40-10- $\mu$ m green tea leaf powder. The coconut oil was centrifuged to give oil with slight green color containing epicatechin, epigallocatechin, epicatechin gallate, epigallocatechin gallate,  $\beta$ -carotene, ascorbic acid, and tocopherol. The oil showed antibacterial effect against Escherichia coli O157:H7 and MRSA.

L82 ANSWER 18 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2002:594682 HCAPLUS

DOCUMENT NUMBER: 137:135060

TITLE: Use of carbohydrates for eliminating intestinal infections in animals

INVENTOR(S): Klingeberg, Michael; Kozianowski, Gunhild; Kunz,

Markwart; Munir, Mohammad; Vogel, Manfred

PATENT ASSIGNEE(S): Sudzucker Aktiengesellschaft Mannheim/Ochsenfurt, Germany

SOURCE: PCT Int. Appl., 53 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002060452	A2	20020808	WO 2001-EP14867	20011217

WO 2002060452 A3 20030320

W: AU, CA, IL, JP, MX, RU, US, ZA

RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR

DE 10104055 A1 20020814 DE 2001-10104055 20010131

EP 1357917 A2 20031105 EP 2001-994796 20011217

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY, TR

PRIORITY APPLN. INFO.:

DE 2001-10104055 A 20010131

WO 2001-EP14867 W 20011217

AB The invention discloses the use of carbohydrates, especially 1-O- $\alpha$ -D-glucopyranosyl-D-sorbitol, 6-O- $\alpha$ -D-glucopyranosylsorbitol, lactobionic acid, maltobionic acid, condensed palatinose, difructose dianhydrides, fructooligosaccharides, hydrated fructooligosaccharides, chitooligosaccharides, chitosanoligosaccharides, galactomannan oligosaccharides and oligogalacturonide-containing pectin hydrolyzates, for the treatment of bacterial intestinal infections in monogastric animals. The invention also discloses animal feed and dietetic animal feed containing one of the carbohydrates as an additive.

L82 ANSWER 19 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 2001:935396 HCAPLUS

DOCUMENT NUMBER: 136:48424

TITLE: Medium chain fatty acids applicable as antimicrobial agents

INVENTOR(S): Molly, Koen; Bruggeman, Geert

PATENT ASSIGNEE(S): N.V. Seghers Nutrition Sciences, Belg.

SOURCE: PCT Int. Appl., 40 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2001097799	A1	20011227	WO 2001-EP6973	20010620
W:		AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM		
RW:		GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG		
EP 1294371	A1	20030326	EP 2001-965011	20010620
R:		AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR		
JP 2003535894	T2	20031202	JP 2002-503284	20010620
US 2003176500	A1	20030918	US 2002-311413	20021213

PRIORITY APPLN. INFO.:

EP 2000-870137 A 20000620

WO 2001-EP6973 W 20010620

AB The invention discloses the use of one or more C6-C10 medium chain fatty acids (MCFA), salts, derivs., or mixts. or emulsions thereof, for the inhibition of microbial contamination, growth and subsequent toxin production. The MCFA are chosen from the group consisting of caproic (C6) acid, heptanoic (C7) acid, caprylic (C8) acid, nonanoic (C9) acid and capric (C10) acid. The invention further relates to a feed composition for an animal comprising a **feed supplement** containing one or more medium

chain fatty acids (MCFA) chosen from the group consisting of caproic (C6) acid, heptanoic (C7) acid, caprylic (C8) acid, nonanoic (C9) acid and capric (C10) acid, preferably caprylic (C8) acid, and capric (C10) acid, salts, derivs., or mixts. or emulsions thereof.

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 20 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:441567 HCAPLUS  
 DOCUMENT NUMBER: 133:58032  
 TITLE: **Feed supplement composition**  
 INVENTOR(S): Molly, Koen; Vandevoorde, Luc; Decuypere, Jaak; Dierick, Noel  
 PATENT ASSIGNEE(S): Vitamex N.V., Belg.  
 SOURCE: PCT Int. Appl., 19 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000036928	A1	20000629	WO 1999-BE168	19991221
W: AE, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, VZ, VN, YU, ZA, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				

PRIORITY APPLN. INFO.: WO 1998-EP8531 W 19981222

AB This invention relates to a **feed supplement** composition comprising one or more free fatty acids containing 6-10 carbon atoms or salts of such fatty acids, or mixts. of the aforementioned compds. As a salt, preferably use is made of a NH<sub>4</sub><sup>+</sup>, Na<sup>+</sup>, K<sup>+</sup> or Ca<sup>2+</sup> salt. The present invention also relates to a feed composition comprising 10-30 percent by weight with respect to the weight of the total composition of the above described **feed supplement** composition

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 21 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 2000:623629 HCAPLUS  
 DOCUMENT NUMBER: 133:207067  
 TITLE: Means for preserving perishable materials, especially food and/or feeds.  
 PATENT ASSIGNEE(S): Wessollek, Heimo, Germany; Arconia G.m.b.H.  
 SOURCE: Ger. Gebrauchsmusterschrift, 12 pp.  
 CODEN: GGXXFR  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 2  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 29904725	U1	20000907	DE 1999-29904725	19990315

EP 1036511 A2 20000920 EP 2000-105485 20000315  
 EP 1036511 A3 20010829

R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,  
 IE, SI, LT, LV, FI, RO

PRIORITY APPLN. INFO.: DE 1999-29904725 U 19990315  
 DE 1999-19915028 A 19990401

AB Means for the biol. sterilization of perishable materials, in particular food and/or feeds, comprise the use of  $\geq 1$  food preservatives as well as at least a non-toxic acid, especially an organic acid.

L82 ANSWER 22 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:622190 HCAPLUS

DOCUMENT NUMBER: 131:213471

TITLE: Highly functional fermented fodder composition and process for preparing the same

INVENTOR(S): Ju, Jong Gon; Yi, Woong Whan

PATENT ASSIGNEE(S): Barodon-Cashpia Corp., S. Korea

SOURCE: U.S., 5 pp.

CODEN: USXXAM

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5958475	A	19990928	US 1998-170666	19981013
JP 2000197453	A2	20000718	JP 1999-12998	19990121
JP 3195948	B2	20010806		

PRIORITY APPLN. INFO.: KR 1998-33416 A 19980818

AB The fodder composition according to the present invention comprises an aqueous solution containing 300-700 g of at least one compound selected from sodium silicate and potassium silicate, 300-700 g of at least one compound selected from potassium carbonate and sodium carbonate, 2-8 g of titanium dioxide, 5-15 g of boron and 80-150 g of sugar in 1 L of water; and 100 kg to 500 kg of fodder. The fodder according to the invention enhances immunity of domestic animals from diseases, without further addition of veterinary medicines such as antibiotic or antibacterial agents, induces increase of body weight of animals, and provides, after slaughter, excellent fleshy substance which contains rich amts. of essential unsatd. fatty acids, particularly  $\omega$ -3 type fatty acids. The fodder can be prepared by natural fermentation at room temperature, without inoculating individual rice chaff for fermentation or of temperature control.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 23 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1999:377172 HCAPLUS

DOCUMENT NUMBER: 131:182161

TITLE: Antimicrobial effect of monolaurylglycerol and lauric acid in a model emulsion system

AUTHOR(S): Plockova, Milada; Filip, Vladimir; Kukackova, Olga; Smidrkal, Jan; Rihakova, Zdenka

CORPORATE SOURCE: Department of Dairy and Fat Technology, Institute of Chemical Technology, Prague, Czech Rep.

SOURCE: Czech Journal of Food Sciences (1999), 17(2), 49-54

CODEN: CJFSFZ; ISSN: 1212-1800

PUBLISHER: Ceska Akademie Zemedelskych Ved

DOCUMENT TYPE: Journal

LANGUAGE: English

AB Antimicrobial effectiveness of monolaurylglycerol (monolaurin) and lauric acid against *Bacillus subtilis* LCC 666, *Escherichia coli* DBM 3104 and *Penicillium expansum* DBM 4061 were studied using two agar diffusion assays and confirmed by the testing of the surviving microbial cells in water-in-oil emulsion with monolaurylglycerol and lauric acid. By using agar spot on lawn diffusion assay, which was more sensitive than the agar well diffusion assay, the values of MIC of monolaurylglycerol (MICMLG) and lauric acid (MICLA) for *Bacillus subtilis* LCC 666 MICMLG = 50 µg/mL, MICLA = 50 µg/mL, for *Escherichia coli* DBM 3104 MICMLG = 500 µg/mL, MICLA = 5,000 µg/mL and for *Penicillium expansum* DBM 4061 MICMLG = 50 µg/mL, MICLA 500 µg/mL were evaluated. Monolaurylglycerol (0.5% weight/weight) and lauric acid (0.5 % weight/weight) were added into the water-in-oil emulsion system. These concns. completely inhibited 1.103 cfu/g of *Bacillus subtilis* LCC 666 during 14 days of storage at 23 °C, decreased 1.104 cfu/g of *Escherichia coli* DBM 3104 by 1 log cycle during 28 days of storage at 23 °C and had no evident effect on *Penicillium expansum* DBM 4061 during 28 days of storage at 23 °C.

REFERENCE COUNT: 15 THERE ARE 15 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L82 ANSWER 24 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:675188 HCAPLUS

DOCUMENT NUMBER: 129:342943

TITLE: Sustained-release gel compositions containing isothiocyanates for preserving fresh food

INVENTOR(S): Okada, Toru; Kuranari, Kenji; Mihara, Yukari

PATENT ASSIGNEE(S): Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10276746	A2	19981020	JP 1997-98382	19970331
US 5968498	A	19991019	US 1998-14612	19980128
PRIORITY APPLN. INFO.:			JP 1997-98382	19970331

AB The compns. used in refrigerators, food storage rooms, etc., contain (i) isothiocyanic acid compds., (ii) aliphatic carboxylic acids, and optionally (iii) fatty acid esters and/or nonionic surfactants. The isothiocyanic acid compds. may be wasabi (Japanese horseradish) or mustard exts. Stearic acid was heated and mixed with polyoxyethylene sorbitan monolaurate, and the solution was further mixed with allyl isothiocyanate and then cooled in a container. The solidified product was packed in a polyester-polyethylene laminate film to give a sustained-release gel. Effect of the gel for apples stored in a refrigerator was also shown.

L82 ANSWER 25 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN

ACCESSION NUMBER: 1998:126508 HCAPLUS

DOCUMENT NUMBER: 128:243179

TITLE: Emulsifier-free compositions containing spirit-containing solutions, fats/oils, and polysaccharide thickeners

INVENTOR(S): Kawabe, Tatsuya; Kasai, Kouyu; Hamada, Makoto; Morita, Hideo

PATENT ASSIGNEE(S): Takara Shuzo Co., Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent  
 LANGUAGE: Japanese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 10052237	A2	19980224	JP 1996-227364	19960812

PRIORITY APPLN. INFO.: JP 1996-227364 19960812

AB The title compns. are useful as seasonings, antiseptic agents, and odor masking agents for foods, etc. Sake, Monategum GS (xanthan gum), and rapeseed oil were mixed to give an emulsion, which was added to minced chicken meat, etc., and cooked. The food had good flavor and less odor than a control.

L82 ANSWER 26 OF 42 HCAPLUS COPYRIGHT 2004 ACS on STN  
 ACCESSION NUMBER: 1999:588925 HCAPLUS  
 DOCUMENT NUMBER: 131:184265  
 TITLE: Inhibitor for yeast and bacteria in manufacturing fruit wine and beverage  
 INVENTOR(S): Li, Hua  
 PATENT ASSIGNEE(S): Wine College, Northwest Agriculture University, Peop. Rep. China  
 SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 3 pp.  
 CODEN: CNXXEV  
 DOCUMENT TYPE: Patent  
 LANGUAGE: Chinese  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1129736	A	19960828	CN 1995-117470	19951117
CN 1057335	B	20001011		

PRIORITY APPLN. INFO.: CN 1995-117470 19951117

AB The inhibitor consists of caprylic acid 0.03, capric acid 0.03, lauric acid 0.03, and absolute ethanol 99.91%. It is a substitute of SO<sub>2</sub>, and can be used to remove the yeast and bacteria in the fruit wine and beverage.

L82 ANSWER 27 OF 42 EMBASE COPYRIGHT 2004 ELSEVIER INC. ALL RIGHTS RESERVED. on STN  
 ACCESSION NUMBER: 81026033 EMBASE  
 DOCUMENT NUMBER: 1981026033  
 TITLE: **Bioassay** of antibacterial agents used as feed additive.  
 AUTHOR: Matsumoto M.; Kanzaki M.; Haruta M.  
 CORPORATE SOURCE: Tokyo Metrop. Res. Lab. Publ. Hlth., Shinjuku-ku, Tokyo, Japan  
 SOURCE: Journal of the Food Hygienic Society of Japan, (1980) 21/3 (224-231).  
 CODEN: SKEZAP  
 COUNTRY: Japan  
 DOCUMENT TYPE: Journal  
 FILE SEGMENT: 037 Drug Literature Index  
 017 Public Health, Social Medicine and Epidemiology  
 LANGUAGE: Japanese

L82 ANSWER 28 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2004-038695 [04] WPIDS  
 DOC. NO. CPI: C2004-015652

TITLE: Preservative for foodstuffs e.g. **fishery** paste product, contains muramidase produced from bacteria, organic acid, fatty acid ester of polyhydric alcohol, amino acid and peptide or protein having **antimicrobial** property.

DERWENT CLASS: D13 D16

PATENT ASSIGNEE(S): (ASAM-N) ASAMA KASEI KK

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2003319769	A	20031111	(200404)*		7

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2003319769	A	JP 2002-130749	20020502

PRIORITY APPLN. INFO: JP 2002-130749 20020502

AB JP2003319769 A UPAB: 20040115

NOVELTY - A preservative for foodstuffs contains muramidase produced from bacteria, organic acid or its salt, fatty acid ester of polyhydric alcohol, amino acid, peptide or protein having **antimicrobial** property, oxidase, monosaccharide, polysaccharide containing amino sugar and its partial decomposed product, spice, essential **oil**, **plant** component, alcohol, bake-processed calcium and/or compound containing nucleic acid.

DETAILED DESCRIPTION - A preservative for foodstuffs contains muramidase produced from bacteria, organic acid or its salt, fatty acid ester of polyhydric alcohol, amino acid, peptide or protein having **antimicrobial** property, oxidase, monosaccharide, disaccharide, sugar alcohols, anhydrous monosaccharide, saccharic acid, polysaccharide containing amino sugar and its partial decomposed product, spice, essential **oil**, **plant** component, alcohol, bake-processed calcium and/or compound containing nucleic acid. AN INDEPENDENT CLAIM is also included for method for preserving foodstuffs.

USE - For preserving fishery paste product, **livestock**, meat-processed goods, daily dishes, noodles, confectionery, etc.

ADVANTAGE - The preservative is effective in extending the quality of foodstuffs without impairing the taste, flavor and color tone of foodstuffs.

Dwg.0/0

L82 ANSWER 29 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2002-315279 [35] WPIDS

DOC. NO. CPI: C2002-091707

TITLE: New adjuvant compound useful for enhancing **immune** responses in **animal**.

DERWENT CLASS: B05 D16

INVENTOR(S): HAWKINS, L D; ISHIZAKA, S T; LEWIS, M; MCGUINESS, P; ROSE, J; YANG, H

PATENT ASSIGNEE(S): (HAWK-I) HAWKINS L D; (ISHI-I) ISHIZAKA S T; (LEWI-I) LEWIS M; (MCGU-I) MCGUINESS P; (ROSE-I) ROSE J; (EISA) EISAI CO LTD

COUNTRY COUNT: 96

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002009752	A2	20020207	(200235)*	EN	81
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG UZ VN YU ZA ZW					
US 2002049314	A1	20020425	(200235)		
AU 2001084354	A	20020213	(200238)		
US 6521776	B2	20030218	(200317)		
EP 1307466	A2	20030507	(200332)	EN	
R: AL AT BE CH CY DE DK ES FI FR GB GR IE IT LI LT LU LV MC MK NL PT RO SE SI TR					

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002009752	A2	WO 2001-IB1658	20010727
US 2002049314	A1 Provisional	US 2000-221752P	20000731
		US 2001-919049	20010730
AU 2001084354	A	AU 2001-84354	20010727
US 6521776	B2 Provisional	US 2000-221752P	20000731
		US 2001-919049	20010730
EP 1307466	A2	EP 2001-963334	20010727
		WO 2001-IB1658	20010727

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001084354	A Based on	WO 2002009752
EP 1307466	A2 Based on	WO 2002009752

PRIORITY APPLN. INFO: US 2000-221752P 20000731; US 2001-919049  
20010730

AB WO 200209752 A UPAB: 20020603

NOVELTY - An immunological adjuvant compound or its salt is new.

DETAILED DESCRIPTION - An immunological adjuvant compound of formula (I), or its salt is new.

R1 = -C(O)-, -C(O)-T-C(O), 2-15C straight or branched alkyl (optionally substituted by H or alkoxy), or -C(O)-Q-C(O);

T = 1-4C alkylene or 1-4C alkenylene (both optionally substituted by OH, 1-6C alkoxy, 1-6C alkylenedioxy, carboxy, 1-6C alkoxycarbonyl, 1-6C carbamoyl, 1-6C acylamino, 1-6C alkylamino, or T'-1-6C alkyl;

T' = aryl optionally substituted by 1-6C alkyl, 1-6C alkoxy, 1-6C alkylamino, 1-6C alkoxy-1-6C alkylamino, (1-6C alkylamino)-1-6C alkoxy, -O-1-6C alkylene-NH-1-6C alkylene-O-1-6C alkyl, -O-1-6C alkylene-NH-C(O)-1-6C alkylene-C(O)OH or -O-1-6C alkylene-NH-C(O)-1-6C alkylene-C(O)-1-6C alkyl;

Q = 6-12C arylene optionally substituted by 1-6C alkyl, hydroxy, 1-6C alkoxy, halogen, nitro, or amino;

a and b = 0 - 4;

d and e = 1 - 6;

d' and e' = 0 - 2;

X1 and Y1 = O, -NH-, -N(C(O)1-4C alkyl)- or -N-(1-4C alkyl)-;

G1 - G4 = O, methylene, -NH-, -N-(1-4C alkyl), -N(C(O)-1-4C alkyl)-, -NH-C(O)-, -NHSO2, -C(O)-O-, -C(O)-NH-, -O-C(O)-, -OC(O)-NH-, -O-C(O)-O-,

NH-C(O)-NH-, -C(O)NH-, C(O)N(1-4C alkyl), or -S(O)n;

n = 0 - 2;

R2 - R7 = Q' or -R8-CH(R9)-G5-R10;

Q' = 1-20C straight or branched chain alkyl, or 2-20C straight or branched chain alkenyl, alkynyl or dialkenyl (both optionally substituted by halo, oxo, hydroxy or alkoxy);

R8 = 1-6C straight or branched chain alkyl, or 2-6C straight or branched-alkenyl, -alkynyl or -dialkenyl;

G5 = O, methylene, arylene, -NH-, -N(1-4C alkyl), -N(C(O)-1-4C alkyl)-, -NH-C(O)-, -NH-SO-2, -C(O)-O-, -C(O)-NH, -O-C(O)-, -OC(O)-NH-, -O-C(O)-O-, NH-C(O)-NH, or -S(O)n;

R9 and R10 = Q'; and

any one or two of G1+R2, G2+R4, G3+R5 or G4+R7 = H or OH.

INDEPENDENT CLAIMS are also included for the following:

(A) a vaccine formulation comprising an antigen and (I); and

(B) stimulating an immune response to an antigen involving administration of the antigen and (I).

ACTIVITY - **Antibacterial**; Antiviral; Antifungal; Protozoacide; Nootropic; Neuroprotective; Cytostatic; Immunosuppressive; Antidiabetic; Antipyretic; Antitussive; Anti-HIV.

Balb/c mice were injected with **dodecanoic acid**

1-(2-((3-(2-((3-dodecanoyloxy-2-tetradecanoylamino-tetradecyloxy)-hydroxy-phosphoryloxy)-ethyl)-ureido)-ethoxy)-hydroxy-phosphoryloxy)-1-tetradecanoylamino-ethyl)-dodecyl ester disodium salt (A) (test compound) together with a protein such as tetanus toxoid. The tetanus toxoid was used as the immunogen at a dose of 0.25 micro g. Female Balb/c mice were injected with 200 micro l of a mixture of antigen and adjuvant in PBS every three weeks for a total of three injections. Control animals were injected with Alum or PBS. All-injections were performed subcutaneously at the back of the neck. Mice were bled two weeks after the second and third injections. Serum was separated from the red cells by micro-centrifugation and tested by enzyme-linked immunosorbent assay (ELISA) for antigen specific IgG levels. Immune response to the peptide can be tested by ELISA, which can quantitate levels of serum antibodies that bind to tetanus toxoid coated onto an ELISA plate. Serum antibody is measured two weeks after the second immunization. The results showed that the mice injected with the compound along with tetanus toxoid antigen demonstrate greater immune response (higher levels of antibody) than those injected with the tetanus toxoid alone. The mean concentration of tetanus toxoid-specific IgG for (A)/PBS was 5640/423 and standard deviation was 2001/351.

MECHANISM OF ACTION - Immune response enhancer; Cytokine release stimulator.

Phosphoric acid 2,5-bis-tetradecanoylamino-tetradecyl ester 2-(3-(2-((2,5-bis-tetradecanoylamino-tetradecyloxy)-hydroxy-phosphoryloxy)-ethyl)-ureido)-ethyl ester disodium salt (a) was added as 10 multiply stocks in 50 micro l of 5% dextrose followed by 50 micro l of 5% dextrose into heparinized whole blood (400 micro l) obtained from normal volunteers (18 - 51 years old; 110 - 230 lb) into the wells of plastic assay plates, for a total volume of 500 micro l/well (final concentration of whole blood was 80%). The 10 multiply stocks were made by dissolving compounds to 1 mM in water and sonicating them for 2 minutes in an ice bath. The compounds were then brought to 10 multiply in 5% dextrose. After a 3-hour incubation with gentle shaking at 37 deg. C in a 5% CO2 atmosphere, the assay plates were centrifuged at 1000 multiply g for 20 minutes at 4 deg. C and plasma was drawn off and frozen at -80 deg. C. Plasma samples were analyzed for TNF- alpha by ELISA. (a) showed TNF- alpha stimulation value of 0.004 micro M.

USE - For stimulating an immune response to an antigen and in the vaccine formulation (claimed) useful for the treatment of human and

animal infectious diseases caused by bacteria, viruses, parasites (e.g. mycoplasmas, fungi, protozoa) and prions, diseases or pathologies, such as Alzheimer's disease, gastric reflux disease, cancer including melanoma, prostate and colon cancer, autoimmune disorders, diabetes, non-pathological situations such as the contraceptive effect induced by immunization to hCG, smallpox, yellow fever, distemper, cholera, fowl pox, scarlet fever, diphtheria, tetanus, whooping cough, influenza, rabies, mumps, HIV, chicken pox, rubella, measles, foot and mouth disease, and poliomyelitis.

ADVANTAGE - The compound stimulates the immune system to generate a more robust response to the antigen than would be seen if the antigen were injected alone or with alum.

Dwg.0/0

L82 ANSWER 30 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2002-195690 [25] WPIDS  
 DOC. NO. CPI: C2002-060442  
 TITLE: **Novel food** complex made of two emulsions with first solids-in-oil emulsion having bioactive materials forming solid phase and **edible oil** forming continuous phase (CP), as dispersed phase and hydrocolloid polymer as CP.  
 DERWENT CLASS: B04 C06 D13 D16  
 INVENTOR(S): MORIARTY, D J W; VILLAMAR, D F  
 PATENT ASSIGNEE(S): (ACUA-N) ACUABIOTEC LLC; (MORI-I) MORIARTY D J W; (VILL-I) VILLAMAR D F  
 COUNTRY COUNT: 96  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 2002000035	A1	20020103	(200225)*	EN	38
RW: AT BE CH CY DE DK EA ES FI FR GB GH GM GR IE IT KE LS LU MC MW MZ NL OA PT SD SE SL SZ TR TZ UG ZW					
W: AE AG AL AM AT AU AZ BA BB BG BR BY BZ CA CH CN CO CR CU CZ DE DK DM DZ EC EE ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NO NZ PL PT RO RU SD SE SG SI SK SL TJ TM TR TT TZ UA UG US UZ VN YU ZA ZW					
AU 2001068078	A	20020108	(200235)		
US 2004009160	A1	20040115	(200406)		
CN 1454058	A	20031105	(200408)		

#### APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 2002000035	A1	WO 2001-US16489	20010622
AU 2001068078	A	AU 2001-68078	20010622
US 2004009160	A1	WO 2001-US16489	20010622
		US 2003-312039	20030715
CN 1454058	A	CN 2001-812813	20010622

#### FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 2001068078	A Based on	WO 2002000035

PRIORITY APPLN. INFO: US 2000-213538P 20000623; US 2003-312039  
 20030715

AB WO 200200035 A UPAB: 20020418  
 NOVELTY - Bioactive **food** complex for aquatic **animals** comprising an emulsion (E1) which is a solids-in-oil or oil-in-solids emulsion of bioactive materials that form solid phase and lipid soluble bioactive compounds dissolved in **edible oil**, and of a second emulsion comprising oil-in-polymer or solids-in-polymer emulsion with E1 as dispersed phase and hydrocolloid polymer as continuous phase, is new.

DETAILED DESCRIPTION - Bioactive **food** complex (I) for feeding aquatic **animals**, comprising:

(1) first emulsion (emulsion-1) (E1) which is solids-in-oil or oil-in-solids emulsion of bioactive materials and powder nutrients that form solid phase and lipid soluble bioactive compounds dissolved in **edible oil** that form oil phase; and

(2) second emulsion comprising oil-in-polymer or solids-in-polymer emulsion with E1 as dispersed phase and hydrocolloid polymer as continuous phase, where the complex is exposed to ions whereby the hydrocolloid polymer is ionically crosslinked and forms a physically stable gel matrix with E1 entrapped in the second emulsion, thereby forming bioactive **food** complex.

INDEPENDENT CLAIMS are also included for the following:

(1) controlling (M1) and/or preventing diseases in aquatic **animals** by feeding the aquatic **animals** a composition comprising at least one probiotic bacteria and at least one inhibitory or regulatory compound; and

(2) preparation (M2) of (I), comprising:

(a) forming E1 comprising a solids-in-oil or an oil-in-solids emulsion of bioactive materials and powder nutrients forming the solid phase and lipid soluble bioactive compounds dissolved in **edible oil** forming the oil phase and of a second emulsion comprising an oil-in-polymer or solids-in-polymer emulsion with the dispersed phase comprising E1 and a hydrocolloid polymer serving as the continuous phase; and

(b) exposing the hydrocolloid polymer to ions, thereby ionically crosslinking the polymer forming a physically stable gel matrix, entrapping E1 in the second emulsion

ACTIVITY - **Antibacterial**.

No biological data is given.

MECHANISM OF ACTION - Competitive exclusion, direct inhibition of cell-to-cell signaling molecules and direct inhibition of homoserine lactone and (acyl)homoserine lactone regulated processes of pathogenic bacteria.

USE - (I) is useful for feeding aquatic **animals**. (I) is useful for controlling and/or preventing diseases in aquatic **animals** caused by gram negative and gram positive bacteria. (M1) is useful for controlling and/or preventing diseases in aquatic **animals** caused by gram negative bacteria such as *Vibrio harveyi*, *V. parahaemolyticus*, *V. splendidus*, *V. mimicus*, *V. cholerae*, *V. alginolyticus*, *V. anguillarum*, *Vibrio* sp. or *Aeromonas* sp., or gram positive bacteria such as *Streptococcus*, *Carnobacterium* or *Micrococcus*. The pathogens are preferably controlled in the digestive tract of the **animals** or in the environment of **animals** including feed bins, feed trays, pens, stands, aquaria, tanks, cages, raceways, ponds, water, surfaces, and sediments of these or other enclosures. (All claimed). (M1) is useful for controlling and/or preventing diseases in crustacean, molluscan, finfish larval, postlarval, juvenile and adult forms. The bacterial pathogenicity is inhibited by a combination of the following mechanisms of the probiotic bacteria such as: control of pathogens by probiotic bacteria by competitive exclusion such as competition for **food** and space, and by direct inhibition such

as by in situ production of antibiotics and gram positive and gram negative bacteria; inhibition of virulence gene expression of gram positive and gram negative pathogenic bacteria by probiotic bacteria; and inhibition of regulation of virulence gene expression in gram negative pathogenic bacteria, by furanones.

ADVANTAGE - The combined effect of probiotic and inhibitory furanone provides most effective control in the hatchery environment and other aquatic environments. The bioactive **food** compounds provide essential micro and macro nutrients required for normal growth and survival of larval shrimp and eliminate the need to use live and fresh **foods**.

Dwg.0/0

L82 ANSWER 31 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2001-642008 [74] WPIDS  
 DOC. NO. CPI: C2001-190225  
 TITLE: **Antimicrobial** agent used as preservative for **food** and in **food** process comprises glycerol medium chain triglyceride **ester** and polyglyceryl condensed **ester** ricinolate.  
 DERWENT CLASS: D13 D22 E17  
 PATENT ASSIGNEE(S): (TAIC) TAIYO KAGAKU KK  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2001226205 A		20010821	(200174)*		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2001226205 A		JP 2000-40808	20000218

PRIORITY APPLN. INFO: JP 2000-40808 20000218

AB JP2001226205 A UPAB: 20011217

NOVELTY - An **antimicrobial** agent comprises glycerol medium chain triglyceride ester and polyglyceryl condensed ester ricinolate.

USE - As preservative in **food** and/or in **food** processing unit (claimed), for preparing **food** such as salad, baked egg, deep-fried chicken, chicken glazed broil, fried **food**, cooked **food**, fishery paste product, boiled fish paste, chikuwa, meat products, ham and sausage.

ADVANTAGE - The **antimicrobial** agent has excellent preservative effect without influencing the taste of **food** and/or process to **food**.

Dwg.0/0

L82 ANSWER 32 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 2001-043491 [06] WPIDS  
 DOC. NO. CPI: C2001-012837  
 TITLE: Manufacture of foodstuffs as fish product, involves heating and then adding, preset weight of **lauric acid** in foodstuffs raw material to give improved shelf life.  
 DERWENT CLASS: D13  
 PATENT ASSIGNEE(S): (SHOW-N) SHOWA SHOJI KK  
 COUNTRY COUNT: 1

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2000287661	A	20001017	(200106)*		5
JP 3426155	B2	20030714	(200347)		4

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2000287661	A	JP 1999-95666	19990402
JP 3426155	B2	JP 1999-95666	19990402

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 3426155	B2 Previous Publ.	JP 2000287661

PRIORITY APPLN. INFO: JP 1999-95666 19990402

AB JP2000287661 A UPAB: 20010126

NOVELTY - Manufacture of foodstuffs involves heating a mixture of **lauric acid** (0.001-0.09 weight%) of 12C fatty acid added to the total amount of a foodstuffs raw material, and sodium acetate (an organic acid neutral salt) to form a solid particle which is added in the foodstuffs raw material. The obtained foodstuffs has improved shelf life.

USE - As fish and **livestock** meat paste product.

ADVANTAGE - The foodstuffs retains the taste, elasticity and pH of the original **food**, and has improved shelf life and effective **antimicrobial** activity.

Dwg.0/0

L82 ANSWER 33 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 2000-477764 [42] WPIDS

DOC. NO. CPI: C2000-143814

TITLE: Gram positive **antimicrobial** composition for foodstuffs and oral hygiene industry, comprises fatty acid sugar **ester** like fructose or galactose of saturated fatty acid (active ingredient) performs **ester** bonding.

DERWENT CLASS: B03 D13 D21 D22 E13

PATENT ASSIGNEE(S): (NIKA-N) NIPPON KAGAKU KIKAI SEIZO KK; (WATA-I) WATANABE T

COUNTRY COUNT: 1

## PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 2000159675	A	20000613	(200042)*		8

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 2000159675	A	JP 1998-339862	19981130

PRIORITY APPLN. INFO: JP 1998-339862 19981130

AB JP2000159675 A UPAB: 20000905

NOVELTY - Gram positive **antimicrobial** composition contains fatty acid sugar ester like fructose or galactose of 10-16C saturated fatty acid as an active ingredient performs ester bonding.

**ACTIVITY - Antimicrobial.**

Shaking culture of Flavobacterium MT62 strain was performed and centrifuged to obtain protease (50000 U/g) by ammonium sulfate precipitate of supernatant liquid. Fructose (720 mg) and protease (40 mg) in fatty acids (2 g) were reacted for 18 hours at 60 deg. C in acetone and silica gel chromatography isolation was performed to obtain fatty acid sugar ester (650 mg). Streptococcus mutans was cultivated in brain heart in fusion medium (5 ml) containing synthesized fatty sugar ester (1 mg) and growth of microbe was measured by (620 nm) turbidity. Control with brain heart fusion medium added only with dimethyl formamide was used. The results showed fructose laurate blocked the growth of Streptococcus mutans strongly in fructose fatty acid ester (0.2 mg/ml concentration). The fructose myristate also showed **antimicrobial** activity.

**MECHANISM OF ACTION** - None given.

**USE** - As **antimicrobial** in foodstuffs and oral hygiene industry.

**ADVANTAGE** - The **antimicrobial** activity is very effective  
Dwg.0/2

L82 ANSWER 34 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
ACCESSION NUMBER: 1995-139334 [18] WPIDS  
DOC. NO. CPI: C1995-064342  
TITLE: **Synergistic** compsns. having  
**antibacteria** and antifungal activity - containing  
thiocyano methylthio-benzothiazole and organic acid.  
DERWENT CLASS: A60 B07 C03 D18 D21 D22 E19 F06 F09 G02 G03 H07 M21  
INVENTOR(S): HOLLIS, C G; OPPONG, D; HOLLIS, G C  
PATENT ASSIGNEE(S): (BUCL) BUCKMAN LAB INT INC  
COUNTRY COUNT: 60  
PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
WO 9508267	A1	19950330	(199518)*	EN	37
RW: AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE					
W: AM AT AU BB BG BR BY CA CH CN CZ DE DK EE ES FI GB GE HU JP KE KG					
KP KR KZ LK LT LU LV MD MG MN MW NL NO NZ PL PT RO RU SD SE SI SK					
TJ TT UA UZ VN					
AU 9478281	A	19950410	(199530)		
ZA 9407127	A	19950726	(199535)		38
US 5494904	A	19960227	(199614)		10
NO 9601190	A	19960522	(199630)		
EP 720428	A1	19960710	(199632)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE					
FI 9601310	A	19960321	(199635)		
SK 9600369	A3	19960904	(199645)		
CZ 9600842	A3	19961016	(199648)		
BR 9407708	A	19970211	(199713)		
US 5604250	A	19970218	(199713)		9
JP 09502974	W	19970325	(199722)		35
AU 680948	B	19970814	(199741)		
CN 1135708	A	19961113	(199804)		
US 5719172	A	19980217	(199814)		11
NZ 274294	A	19980626	(199831)		
EP 720428	B1	19991110	(199952)	EN	
R: AT BE CH DE DK ES FR GB GR IE IT LI LT LU MC NL PT SE SI					
DE 69421622	E	19991216	(200005)		

ES 2141256 T3 20000316 (200021)  
 MX 188063 B 19980217 (200045)  
 CA 2172543 C 20021217 (200309) EN

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
WO 9508267	A1	WO 1994-US9465	19940826
AU 9478281	A	AU 1994-78281	19940826
ZA 9407127	A	ZA 1994-7127	19940915
US 5494904	A	US 1993-125849	19930924
NO 9601190	A	WO 1994-US9465	19940826
		NO 1996-1190	19960322
EP 720428	A1	EP 1994-929102	19940826
		WO 1994-US9465	19940826
FI 9601310	A	WO 1994-US9465	19940826
		FI 1996-1310	19960321
SK 9600369	A3	WO 1994-US9465	19940826
		SK 1996-369	19940826
CZ 9600842	A3	CZ 1996-842	19940826
BR 9407708	A	BR 1994-7708	19940826
		WO 1994-US9465	19940826
US 5604250	A Div ex	US 1993-125849	19930924
		US 1995-571192	19951212
JP 09502974	W	WO 1994-US9465	19940826
		JP 1995-509763	19940826
AU 680948	B	AU 1994-78281	19940826
CN 1135708	A	CN 1994-194260	19940826
US 5719172	A Div ex	US 1993-125849	19930924
	Div ex	US 1995-571192	19951212
		US 1996-741101	19961030
NZ 274294	A	NZ 1994-274294	19940826
		WO 1994-US9465	19940826
EP 720428	B1	EP 1994-929102	19940826
		WO 1994-US9465	19940826
DE 69421622	E	DE 1994-621622	19940826
		EP 1994-929102	19940826
		WO 1994-US9465	19940826
ES 2141256	T3	EP 1994-929102	19940826
MX 188063	B	MX 1994-7328	19940923
CA 2172543	C	CA 1994-2172543	19940826
		WO 1994-US9465	19940826

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
AU 9478281	A Based on	WO 9508267
EP 720428	A1 Based on	WO 9508267
BR 9407708	A Based on	WO 9508267
US 5604250	A Div ex	US 5494904
JP 09502974	W Based on	WO 9508267
AU 680948	B Previous Publ.	AU 9478281
	Based on	WO 9508267
US 5719172	A Div ex	US 5494904
	Div ex	US 5604250
NZ 274294	A Based on	WO 9508267
EP 720428	B1 Based on	WO 9508267
DE 69421622	E Based on	EP 720428

Based on WO 9508267  
 ES 2141256 T3 Based on EP 720428  
 CA 2172543 C Based on WO 9508267

PRIORITY APPLN. INFO: US 1993-125849 19930924; US 1995-571192  
 19951212; US 1996-741101 19961030

AB WO 9508267 A UPAB: 19950518

Synergistic compsn. containing 2-(thiocyanomethyl) benzothiazole (TCMTB) and organic acid(s) or salt(s) to control growth of microorganism(s), is new.

USE - The compsn. is used for inhibiting growth of bacteria and fungi in various industrial prods., materials, and media, whether solid, dispersion, emulsion, or solution, susceptible to attack, and also in agriculture, for protection of seeds or crops. Notable organisms controlled include *Trichoderma viride* and *Pseudomonas aeruginosa*. Industrial usage areas include wood, wood pulp, wood chips, lumber, paints and acrylic latex paint emulsions, leather, adhesives, coatings, animal hides, tanning liquid, paper mill liquid, metalworking fluids, starch, petrochemicals, geological drilling lubricants, cooling tower water, textiles, and pharmaceutical, cosmetic, and toiletry formulations. The components can either be dispensed together as a formulation or added separately.

The TCMTB is used in amount 0.1-3000, pref. 0.1-1000, most pref. 0.1-500 ppm, and the organic acid 0.1-1%, pref. 0.1-5000, most pref. 0.1-2000 ppm.

ADVANTAGE - The TCMTB and organic acid(s) are commercially available, the latter partic. readily. The synergism improves economy in use, and the compsns. have low toxicity, with prolonged effect.  
 Dwg.0/0

L82 ANSWER 35 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1993-208815 [26] WPIDS

DOC. NO. NON-CPI: N1993-160312

DOC. NO. CPI: C1993-092634

TITLE: New **anti-bacterial** agent, comprising  
**mono** glyceride derivative - prepared by reacting melt  
 of **mono** glyceride and organic poly hydric  
 carboxylic acid using basic catalyst.

DERWENT CLASS: B05 C03 E17 F06 P34

PATENT ASSIGNEE(S): (LIOY) LION CORP

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 05132403	A	19930528	(199326)*		5

APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 05132403	A	JP 1991-179018	19910625

PRIORITY APPLN. INFO: JP 1991-179018 19910625

AB JP 05132403 A UPAB: 19931116

**Anti-bacterial** agent containing a salt of monoglyceride polyhydric carboxylic acid ester of formula (I) is new. (R is 7-19C alkyl or alkenyl; one of Z1 and Z2 is H, and the other is polyhydric carboxylic acid residue).

USE/ADVANTAGE - **Anti-bacterial** agent used e.g. in

food industry, cosmetics and clothing. (I) are prepared by mixing a monoglyceride of formula (II) with an organic polyhydric carboxylic acid or its acid anhydride, heating to molten state adding opt. basic catalyst for a reaction to obtain a monoglyceride polyhydric carboxylic acid ester, and then partially or completely neutralising the ester using an appropriate base. As the acid component, an acid anhydride is pref. used. For example, in case of succinic acid, the reaction takes more than 120 minutes at 150 deg.C, while in case of succinic anhydride, the reaction can be completed in about 90 minutes at about 130 deg.C.

R of the fatty acid residue RCO- in (II) is 7-19C alkyl or alkenyl and it is opt. saturated and straight chain or branched chain. RCO- is a residue of caprylic acid, capric acid, lauric acid, myristic acid, palmitic acid, stearic acid, isostearic acid, oleic acid, etc. The organic polyhydric carboxylic acid or acid anhydride thereof is an organic acid or acid anhydride thereof having two or more carboxyl groups, e.g. malic acid, citric acid, tartaric acid or diacetyl tartarate or an acid anhydride thereof, pref. anhydrous citric acid, anhydrous diacetyl tartarate, anhydrous glutarate, anhydrous maleic acid, etc. pH of (I) is 3-11, pref. 4-9.

In an example, C12 monoglyceride (100g) was heated, anhydrous succinic acid (37g) was added thereto, and the mixture was reacted 90 minutes at 120 deg.C to obtain white semi-solid succinic C12 monoglyceride (acid value 150). The succinic C12 monoglyceride was dissolved in ethylalcohol, the mixture was neutralised by ethanol solution of NaOH, and concentrated to adjust pH 4 and 7, respectively. The solution prepared contains unreacted C12 monoglyceride in a weight ratio of 0.19 to the total amount of succinic-sodium monoglyceride and C12 monoglyceride.  
Dwg.0/0

L82 ANSWER 36 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN  
 ACCESSION NUMBER: 1989-132526 [18] WPIDS  
 DOC. NO. CPI: C1989-058582  
 TITLE: **Antimicrobial** agent used in foodstuffs containing oil and fat - comprises di carboxylic acid **ester**  
 DERWENT CLASS: D13 D21 D22 E17  
 PATENT ASSIGNEE(S): (NIHA) NIPPON MINING CO; (NISW) NISSHIN OIL MILLS LTD;  
 (PERC) PERMACHEM ASIA LTD  
 COUNTRY COUNT: 1  
 PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 01075404	A	19890322	(198918)*		4
JP 06080002	B2	19941012	(199439)		5

## APPLICATION DETAILS:

PATENT NO	KIND	APPLICATION	DATE
JP 01075404	A	JP 1987-234138	19870918
JP 06080002	B2	JP 1987-234138	19870918

## FILING DETAILS:

PATENT NO	KIND	PATENT NO
JP 06080002	B2 Based on	JP 01075404

PRIORITY APPLN. INFO: JP 1987-234138 19870918

AB JP 01075404 A UPAB: 19930923

**Antimicrobial** agent comprises dicarboxylic acid ester of formula  $(CH_2)_n(COOR)_2$ , where R is at least 11C alkyl or cholesteryl, and n is at least 8.

Specifically, the active ingredient includes didoecyl, ditetradecyl, dihexadecyl and dioctadecyl esters of undecanoic acid, **dodecanoic acid**, tridecanoic acid, tetradecanoic acid, pentadecanoic acid, octadecanoic acid, nonadecanoic acid, etc. The agent is used in an amount of 1 weight % concentration, and the agent is opt. used together with **food** additive, cosmetic additive, etc.

USE/ADVANTAGE - Agent has high liposolubility and high **antimicrobial** activity. It is used in oil or fat or foodstuffs contg. oil or fat, etc.

L82 ANSWER 37 OF 42 WPIDS COPYRIGHT 2004 THOMSON DERWENT on STN

ACCESSION NUMBER: 1980-19327C [11] WPIDS

TITLE: **Food** preservative with **antimicrobial** activity - contains **lauric acid** **mono** glyceride, condensed phosphate and sorbic acid or sorbate.

DERWENT CLASS: D13 E17

PATENT ASSIGNEE(S): (TAKE) TAKEDA CHEM IND LTD

COUNTRY COUNT: 1

PATENT INFORMATION:

PATENT NO	KIND	DATE	WEEK	LA	PG
JP 55015728	A	19800204	(198011)*		
JP 62042589	B	19870909	(198739)		

PRIORITY APPLN. INFO: JP 1978-88003 19780718

AB JP 55015728 A UPAB: 19930902

A **foor** preservative (I) contians 1 weight pts. **lauric acid** monoglyceride (II), 1-100 weight pts. of condensed phosphate (III) and 0.50-weight pts. of sorbic acid and/or sorbate (IV). It is added to **food**, at 0.1-3 weight%. (I) has high **anti-microbial** activity and high antiseptic activity.

In (II), other fatty acid monoglycerides, such as monoglyceride, diglyceride and triglyceride of caprylic acid, capric acid, myristic acid may be added. As (III), polyphosphate, pyrophosphate, metaphosphate and acidic pyrophosphate of alkali metal such as Na, and K and alkali earth metal such as Ca, Mg, and Ba are used. Examples of (IV) are Na and K sorbate. The **food** is especially boiled fish paste, sausage, ham or salad.

L82 ANSWER 38 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 2002:448024 BIOSIS

DOCUMENT NUMBER: PREV200200448024

TITLE: The effect of **oilseeds** in diets of lactating cows on milk production and methane emissions.

AUTHOR(S): Johnson, K. A. [Reprint author]; Kincaid, R. L.; Westberg, H. H.; Gaskins, C. T.; Lamb, B. K.; Cronrath, J. D.

CORPORATE SOURCE: Department of Animal Sciences, Washington State University, Pullman, WA, 99164, USA  
johnsoka@wsu.edu

SOURCE: Journal of Dairy Science, (June, 2002) Vol. 85, No. 6, pp. 1509-1515. print.

CODEN: JDSCAE. ISSN: 0022-0302.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 21 Aug 2002  
Last Updated on STN: 21 Aug 2002

AB Thirty-six lactating multiparous Holstein cows were assigned to diets that contained 2.3, 4.0, and 5.6% fat for an entire lactation to determine the effect of oilseeds on milk composition, production, and methane emissions. The diets were formulated so that whole cottonseeds and canola oilseeds provided equal amounts of added fat. Methane emissions were measured every 3 mo from two replicates of four cows per treatment using a room tracer approach. Dry matter intakes and yields of milk and FCM were greater for cows fed the diets containing oilseeds. Although the concentration of protein in milk was reduced, yields of both protein and fat tended to be increased by the addition of fat. Within the milk fat, the concentrations of C10, C12, C14:0, and C16:0 were reduced and concentrations of C18, C18:1, and trans-C18:1 were increased in response to dietary oilseeds. In serum, urea-N was increased by the dietary oilseeds. Supplementation of diets with oilseeds did not affect methane emissions but tended to increase the efficiency of milk produced per unit of methane emitted. A 1.7% addition of fat to the control diet from a combination of oilseed types increased yields of milk without reducing methane emission rates. The strategy of using unsaturated fats from oilseeds to substantially reduce methane emissions was ineffective, although yield of milk was increased.

L82 ANSWER 39 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 2002:262916 BIOSIS  
DOCUMENT NUMBER: PREV200200262916  
TITLE: Milk fat **globule** size is not affected by diet restriction or soy oil supplementation.  
AUTHOR(S): Beaulieu, A. D. [Reprint author]; Drackley, J. K. [Reprint author]; Lynch, J. M.; Barbano, D. M.  
CORPORATE SOURCE: University of Illinois, Urbana, IL, USA  
SOURCE: Journal of Dairy Science, (2001) Vol. 84, No. Supplement 1, pp. 312. print.  
Meeting Info.: Joint Meeting of the American Dairy Science Association, American Meat Science Association, American Society of Animal Science and the Poultry Science Association. Indianapolis, Indiana, USA. July 24-28, 2001.  
American Dairy Science Association; American Meat Science Association; American Society of Animal Science; Poultry Science Association.  
CODEN: JDSCAE. ISSN: 0022-0302.  
DOCUMENT TYPE: Conference; (Meeting)  
Conference; Abstract; (Meeting Abstract)  
LANGUAGE: English  
ENTRY DATE: Entered STN: 1 May 2002  
Last Updated on STN: 1 May 2002

L82 ANSWER 40 OF 42 BIOSIS COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN  
ACCESSION NUMBER: 1996:112191 BIOSIS  
DOCUMENT NUMBER: PREV199698684326  
TITLE: Modifying the fatty acid profile of dairy products through **feedlot** technology lowers plasma cholesterol of humans consuming the products.  
AUTHOR(S): Noakes, Manny [Reprint author]; Nestel, Paul J.; Clifton, Peter M.  
CORPORATE SOURCE: CSIRO Div. Human Nutr., PO Box 10041, Gouger Street, Adelaide, SA 5000, Australia  
SOURCE: American Journal of Clinical Nutrition, (1996) Vol. 63, No.

1, pp. 42-46.  
CODEN: AJCNAC. ISSN: 0002-9165.

DOCUMENT TYPE: Article  
LANGUAGE: English  
ENTRY DATE: Entered STN: 12 Mar 1996  
Last Updated on STN: 13 Mar 1996

AB Intake of milk and butter has been clearly associated with higher coronary heart disease rates in different countries and this is likely to be mediated by the hypercholesterolemic effect of dairy fat. Fat-modified dairy products are an innovation involving a technology in which protected unsaturated lipids are fed to ruminants resulting in milk and tissue lipids with reduced saturated fatty acids. We examined the impact of these novel dairy fats on plasma lipids in a human dietary trial. Thirty-three men and women participated in an 8-wk randomized crossover trial comparing fat-modified with conventional dairy products. The trial consisted of a 2-wk low-fat baseline period followed by two 3-wk intervention phases. During the test periods, the fat-modified products resulted in a significant 0.28-mmol/L (4.3%) lowering of total cholesterol (P lt 0.001). Most of this decrease was in LDL cholesterol, which decreased by 0.24 mmol/L (P lt 0.001) whereas HDL cholesterol and triacylglycerols remained essentially unchanged. This alteration in the fatty acid profile of dairy products, if applied to populations typical of developed Western countries, represents a potential strategy to lower the risk of coronary heart disease without any appreciable change in customary eating patterns.

L82 ANSWER 41 OF 42 BIOSIS. COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1994:204670 BIOSIS  
DOCUMENT NUMBER: PREV199497217670  
TITLE: Effects of **feed** fats on **quality** of animal products.

AUTHOR(S): Hartfiel, W.  
CORPORATE SOURCE: Sebastian-Kneipp-Str. 17, D-53879 Euskirchen, Germany  
SOURCE: Fett Wissenschaft Technologie, (1994) Vol. 96, No. 2, pp. 50-55.  
CODEN: FWTEEG. ISSN: 0931-5985.

DOCUMENT TYPE: Article  
LANGUAGE: German  
ENTRY DATE: Entered STN: 10 May 1994  
Last Updated on STN: 11 May 1994

AB At the same level of energy supply intake of fats/oils do not lead to a higher fat deposition in the carcass. Additionally, fats are carrier of fat soluble vitamins A, D, E, K and improve their absorption from the intestinal tract. The fatty acid profile of fat deposited in the organism, as for example in egg yolk is influenced by the intake of fatty acids provided by **feed**. This especially concerns linoleic- and linolenic acid as well as lauric- and myristic acid. High contents of polyunsaturated fatty acids negatively influence oxidative stability as well as consistency of body fat and therefore quality of animal products. An improved oxidation protection can be carried out by supplementation of antioxidants. Medium-chain, saturated fatty acids reveal positive effects on both criteria.

L82 ANSWER 42 OF 42 BIOSIS. COPYRIGHT 2004 BIOLOGICAL ABSTRACTS INC. on STN

ACCESSION NUMBER: 1981:264717 BIOSIS  
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TITLE: KETOGENESIS AND **RUMEN** FUNCTION FOLLOWING INTRA RUMINAL ADMINISTRATION OF SATURATED FATTY-ACIDS 8 10 AND 12 CARBON IN **CATTLE**.

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AB Practical observations and the results of feeding experiments demonstrate that excessive fat in the **food** ration can cause ketonuria in **cattle**. In order to examine the nature and development of this fat ketosis, 20 experiments were carried out in 5 cows, 300-500 g of caprylic, capric **lauric acid** being administered daily via a rumen fistula. The ketogenic effect was assessed on the basis of the following criteria:  $\beta$ -hydroxybutyrate (BHB), aceto-acetate (AA) and glucose levels in the blood, BHB and AA in the urine, the results of the semiquantitative Denco test on the urine, changes in the rumen fluid and clinical signs. Within 2 h of caprylic or capric acid administration, there was a rise in the BHB and AA levels in the urine. The ketonuria, which lasted up to 24 h (.hivin.x maxima/C8: BHB 38.6 mg/dl, AA 16.7 mg/dl; C10: BHB 8.0 mg dl, AA 14.5 mg/dl), was also detectable by the Denco test. In the blood there was an increase mainly in the BHB levels (.hivin.x maxima/C8: BHB 9.6 mg/dl, AA 1.3 mg/dl; C10: BHB 5.9 mg/dl, AA 0.6 mg/dl), while glucose levels exhibited a temporary drop (.hivin.x minima/C8: 54%; C10: 21% of 0-level). **Lauric acid** (2 experiments) provoked a slight ketogenic reaction. All 3 of the fatty acids tested decreased rumen motility and the microbial activity in the rumen fluid. The general condition of the animal and the sensorium were partially depressed, as occurs with spontaneous ketosis. Saturated fatty acids in the ration (e.g., concentrates containing coconut oil or palm butter) can be of practical significance in the etiology of ketosis.

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